

# Application guide comfair CONTROLLERS



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## BASIC CONTROL PANEL

#### **PURCHASE CODES**

- Mounted: ED98090000M
- Loose / Not mounted: ED980900000S

#### PRODUCT TYPE

- Control for fan coil without room temperature control
- Main functions: switching the fan coil on and off;
  - manual heating/cooling selection;
  - manual 3 speed setting;
- Installation: directly on the fan coil;
- Alimentazione: 230 Vac 50 Hz



Supplied as standard in the versions x0-x5-x8

#### PRODUCT DESCRIPTION

Control for fan coil with 2 or 4 pipes.

Complete with:

- Manual cooling/off/heating selector switch. Manual fan low-med-high speed selector switch;
- Input for minimum water temperature thermostat (bimetallic contact);
- 2 outputs for on-off type valve 230 Vac.

#### APPLICATION

Control for a single fan coil in hotel rooms, offices and dwellings where a built-in temperature controller is not required. Suitable for:

- 2-pipe system;
- 2-pipe system + valve;
- 4-pipe system + 2 valves with manual heating/cooling changeover.

#### **OPERATION**

- 1 2-pipe fan coil without valve: the cooling/off/heating selector switch is manually set to start the fan in the selected mode.
- 2 2-pipe fan coil with valve: the cooling/off/heating selector switch is manually set to start the fan in the selected mode and open the valve.
- 3 4-pipe fan coil with 2 valves: in the heating mode the fan starts and the hot water valve opens. In the cooling mode the fan starts and the cold water valve opens.

#### Fan operation:

Heating: when a minimum water temperature thermostat is installed the fan starts when the exchanger temperature exceeds 35°C. When no minimum water temperature thermostat is installed the fan continues to run at the speed set with the speed selector switch.

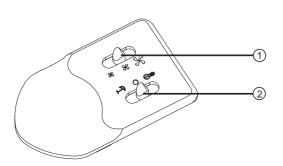
Cooling: the fan continues to run at the speed set with the speed selector switch.

#### **ACCESSORIES**

- Minimum water temperature thermostat (bimetallic contact 35°C)
- Room temperature remote bulb thermostat (also see page 6)

#### **PURCHASE CODES**

- Mounted: ED9809000101
- Loose / Not mounted: ED980900101S
- Mounted: **ED9809000102**
- Loose / Not mounted: ED980900102S



- ① Low medium high speed selector switch: selector switch used to set the fan powerup speed:
  - ( ¾ ): low speed;
  - (﴾): medium speed;
  - (%): high speed.
- Summer/off/winter selector switch: selector switch used to start or stop the fan coil as described below:
  - Summer mode (  $\mathscr{C}_1$  ): power up is in the cooling mode;
    - Winter mode ( 🗓 ): è power up is in heating mode;
    - Off mode (  $\odot$  ): the fan coil is switched off.



Power supply: Contact capacity: 230Vac ±10% 50Hz 5 A @ 250Vac

Enclosure: Material:

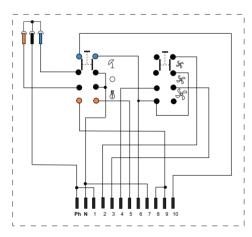
ABS

Colour:

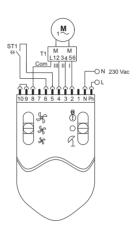
Light grey (RAL 7035)

#### WIRING DIAGRAMS

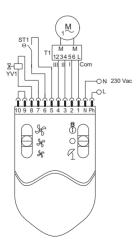
#### INTERNAL



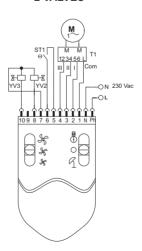
#### 2 PIPE SYSTEM



## 2 PIPE SYSTEM + VALVE



### 4 PIPE SYSTEM + 2 VALVES



#### LEGENDA:

T1 AUTOTRANSFORMER (not always installed)
YV1 HOT/COLD WATER VALVE

YV2 HOT WATER VALVE YV3 COLD WATER VALVE

ST1 MINIMUN WATER

TEMPERATURE THERMOSTAT



#### **PURCHASE CODES**

#### BASIC CONTROL PANEL WITH - Mounted: ED980900000M + ED9809000102 **ROOM TEMPERATURE** REMOTE BULB THERMOSTAT

- Loose / Not mounted: ED980900000S + ED980900102S

#### PRODUCT TYPE

- Room temperature remote bulb thermostat for fan coil;

- Main functions: - switching the fan coil on and off:

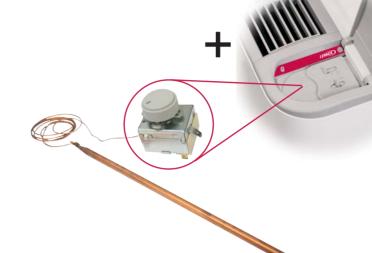
- room temperature adjustment;

- manual heating/cooling selection;

- manual 3 speed setting;

- Installation: - directly on the fan coil;

- 230 Vac 50 Hz - Power supply:



#### PRODUCT DESCRIPTION

Room temperature remote bulb thermostat for 2 or 4-pipe fan coil. Complete with:

- Room temperature control knob:
- Manual cooling/off/heating selector switch;
- Manual fan low-med-high speed selector switch;
- Input for minimum water temperature thermostat (bimetallic contact);
- 2 outputs for on-off type valve 230 Vac.

#### **APPLICATION**

Control for a single fan coil in hotel rooms, offices and dwellings where manually controlled functions and automatic room temperature adjustment are required. Suitable for:

- 2-pipe system;
- 2-pipe system + valve:
- 4-pipe system + 2 valves with manual heating/cooling changeover.

#### OPERATION

1 - 2-pipe fan coil without valve: the thermostat starts the fan if heating or cooling is required and stops the fan when the room temperature set with the knob has been reached.

When a minimum water temperature thermostat is installed, in the heating mode the fan starts when the exchanger temperature exceeds 35°C.

- 2 2-pipe fan coil with valve: the thermostat opens the valve if heating or cooling is required and closes it when the room temperature set with the knob has been reached.
- 3 4-pipe fan coil with 2 valves: the heating or cooling function is set manually. The thermostat controls the hot water valve in the heating mode and the cold water valve in the cooling mode; it closes the valve when the room temperature set with the knob has been reached.

#### Fan operation in configurations 2-3:

Heating: when a minimum water temperature thermostat is installed, fan starts when the exchanger temperature exceeds 35°C. When no minimum water temperature thermostat is installed the fan continues to run at the speed set with the speed selector switch. Cooling: the fan continues to run at the set speed.

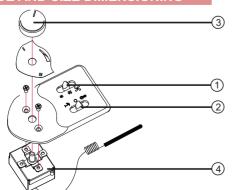
N.B.: for correct operation use the valves.

#### **ACCESSORIES**

#### **PURCHASE CODES**

- Minimum water temperature thermostat (bimetallic contact 35°C)

- Mounted: ED9809000101
- Loose / Not mounted: ED980900101S



- 1 Low - medium - high speed selector switch: selector switch used to set the fan powerup speed:
  - low speed;
  - ): medium speed;
  - (\(\sum\_\): high speed.
- Summer/off/winter selector switch: selector switch used to start or stop the fan coil as described below:
  - Summer mode ( ? ): power up is in the cooling mode;
  - Winter mode ( ): è power up is in the dealing mode;
    Off mode ( ): the fan coil is switched off.
- Temperature control knob: knob used to set the required room temperature.
- (4) Room temperature remote bulb thermostat.



Power supply:

230Vac ±10% 50Hz

Contact capacity: Air intake sensor:

5 A @ 250Vac

Differential:

capillary bulb 1,5°C/±1°C

Adjustment range:

1,3 C/±1 C 10°C .. 32°C

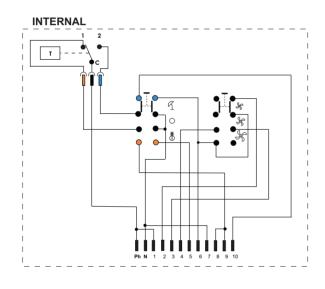
Enclosure: Material:

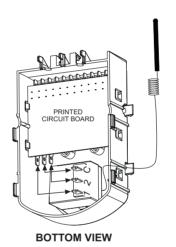
ABS

Colour:

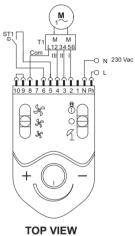
Light grey (RAL 7035)

#### **WIRING DIAGRAMS**

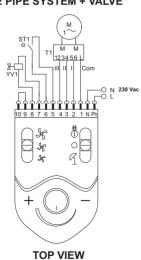




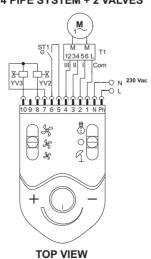




#### 2 PIPE SYSTEM + VALVE



#### 4 PIPE SYSTEM + 2 VALVES



#### LEGENDA:

T1 AUTOTRANSFORMER (not always installed)
YV1 HOT/COLD WATER VALVE
YV2 HOT WATER VALVE
YV3 COLD WATER VALVE
ST1 MINIMUN WATER

TEMPERATURE THERMOSTAT



# CONTROL PANEL WITH ELECTRONIC ROOM THERMOSTAT

#### PURCHASE CODES

- Mounted: ED980900011M
- Loose / Not mounted: ED980900011S

#### PRODUCT TYPE

- Electronic thermostat for fan coil;
- Main functions: switching the fan coil on and off;
  - room temperature adjustment;
  - manual heating/cooling selection;
  - manual 3 speed setting;
- Installations: directly on the fan coil;
- Power supply: 230 Vac 50 Hz



#### PRODUCT DESCRIPTION

Electronic thermostat for 2 or 4-pipe fan coil.

Complete with:

- Room temperature control knob;
- Manual cooling/off/heating selector switch;
- Manual fan low-med-high speed selector switch;
- Input for minimum water temperature thermostat (bimetallic contact);
- 2 outputs for on-off type valve 230 Vac.

#### APPLICATION

Control for a single fan coil in hotel rooms, offices and dwellings where manually controlled functions and precise automatic room temperature adjustment are required. Suitable for:

- 2-pipe system;
- 2-pipe system + valve;
- 4-pipe system + 2 valves with manual heating/cooling changeover.

#### OPERATION

1 - 2-pipe fan coil without valve: the thermostat starts the fan if heating or cooling is required and stops the fan when the room temperature set with the knob has been reached.

When a minimum water temperature thermostat is installed, in the heating mode the fan starts when the exchanger temperature exceeds 35°C.

- 2 2-pipe fan coil with valve: the thermostat opens the valve if heating or cooling is required and closes it when the room temperature set with the knob has been reached.
- 3 4-pipe fan coil with 2 valves: the heating or cooling function is set manually. The thermostat controls the hot water valve in the heating mode and the cold water valve in the cooling mode; it closes the valve when the room temperature set with the knob has been reached.

#### Operation of the fan in configurations 2-3:

Heating: when a minimum water temperature thermostat is installed, the fan starts when the exchanger temperature exceeds 35°C. When no minimum water temperature thermostat, the fan continues to run at the speed set with the speed selector switch.

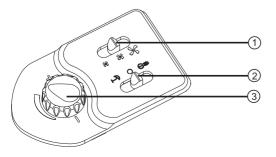
Cooling: the fan continues to run at the set speed. **N.B.:** for correct operation use the valves.

#### **ACCESSORIES**

#### **PURCHASE CODES**

 Minimum water temperature thermostat (bimetallic contact 35°C)

- Mounted: ED9809000101
- Loose / Not mounted: ED980900101S



- ① Low medium high speed selector switch: selector switch used to set the fan powerup speed:
  - ( ¾ ): low speed;
  - (⅙): medium speed;
  - (%): high speed.
- Summer/off/winter selector switch: selector switch used to start or stop the fan coil as described below:
  - Summer mode (  $\mathscr{T}$  ): power up is in the cooling mode;
  - Winter mode ( 5 ): è power up is in heating mode;
  - Off mode ( ): the fan coil is switched off.
- 3 Temperature control knob: knob used to set the required room temperature.



Power supply:

230Vac ±10% 50Hz

Contact capacity:

5 A @ 250Vac

Air intake sensor:

NTC 10 K @ 25°C

10°C .. 30°C

Differential:

0,5°C

Adjustment range: Enclosure: Material:

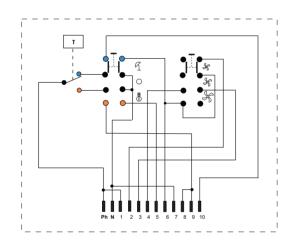
ABS

Colour:

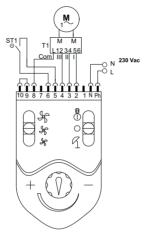
Light grey (RAL 7035)

#### WIRING DIAGRAMS

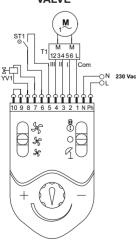
#### INTERNAL



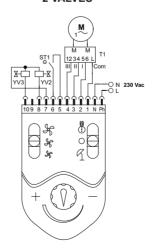
#### 2 PIPE SYSTEM



## 2 PIPE SYSTEM + VALVE



### 4 PIPE SYSTEM + 2 VALVES



#### LEGENDA:

T1 AUTOTRANSFORMER (not always installed)

YV1 HOT/COLD WATER VALVE

YV2 HOT WATER VALVE YV3 COLD WATER VALVE

ST1 MINIMUN WATER

TEMPERATURE THERMOSTAT



#### **PURCHASE CODES**

## $\mathsf{TC}$

- Mounted: **ED9809000101**- Loose / Not mounted: **ED980900101S** 

#### PRODUCT TYPE

- Low temperature thermostat (minimum water temperature) for:
  - basic control panel;
  - basic control panel + room temperature remote bulb thermostat;
  - control panel with electronic room thermostat;
  - CD11:
  - CD12
- Installation:

- directly on the fan coil

(designed for insertion between exchanger fins).



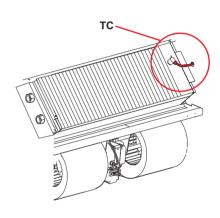
#### PRODUCT DESCRIPTION

Direct contact thermostat for use in the heating mode. Complete with:

- Bimetallic NO contact.



Suitable for a single 2 or 4-pipe fan coil connected to either heat pump or boiler. In the 4-pipe fan coil the thermostat is installed in the heat exchanger.



#### **OPERATION**

In the heating mode the fan remains off until the exchanger temperature reaches 35°C°; the thermostat functions are designed:

- 1) to avoid distribution of cold air which would create discomfort for persons;
- 2) to keep the fan switched off when the circulating pump is off due to timed operation.

#### **ACCESSORIES**

**PURCHASE CODES** 

- None

#### **APPEARANCE**





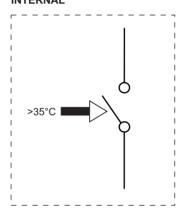
 Voltage:
 230Vac ±10% 50Hz

 Contact capacity:
 5 A @ 250 Vac

Enclosure: Material: PVC

#### WIRING DIAGRAMS

#### INTERNAL





## INFRARED REMOTE CONTROL

#### **PURCHASE CODES**

- Mounted: EDT00010057M

- Loose / Not mounted: EDT00010057S

#### **REMOTE CONTROL - MOTHERBOARD - RECEIVER**

#### **PRODUCT TYPE**

- Electronic control for fan coil with infrared remote control
- Remote control with LCD for setting all functions:
  - Switching the fan coil on and off
  - Manual heating/cooling selection
  - Manual and automatic 3 speed setting
  - Setting the required temperature
  - On-off valve control

Installation: directly on the fan coil
Power supply: 230 Vac 50 Hz





#### PRODUCT DESCRIPTION

Electronic control with infrared remote control for 2 or 4-pipe fan coil.

Functions that may be set using the remote control keypad: on/off; set point temperature; auto-low-med-high fan speed; resend (sending of the settings on the remote control to other fan coils); daily timer for timed fan coil operation (it must be set manually every day); clock; economy. Auto function: the fan automatically controls the speed upon approaching the set point.

Receiver with operation and alarm warning LED; key for operation in manual mode and heating/cooling selection in case the remote control is mislaid. Alarm input for condensate drain pump.

2 outputs for on-off type valve 230 Vac.

#### **APPLICATION**

Control for a single fan coil in offices and dwellings where an infrared remote control is required for easy installation and for easy setting of all functions. Suitable for:

- 2-pipe system;
- 2-pipe system + valve;
- 4-pipe system + 2 valves with manual heating/cooling changeover.

#### **OPERATION**

1 - 2-pipe fan coil without valve: the electronic control starts the fan if heating or cooling is required and stops the fan when the room temperature set with the remote control has been reached.

Heating: the fan starts when the exchanger temperature exceeds 38°C.

- 2 2-pipe fan coil with valve: the electronic control opens the valve if heating or cooling is required and closes it when the room temperature set with the remote control has been reached.
- **3 4-pipe fan coil with 2 valves:** the heating or cooling function is set with the remote control. The electronic control controls the hot water valve in the heating mode and the cold water valve in the cooling mode; it closes the valve when the room temperature set with the remote control has been reached. **Fan operation in configurations 2-3**

Heating: the fan starts when the exchanger temperature exceeds 38°C.

Cooling: the fan continues to run at the set speed.

N.B.: for correct operation use the valves.

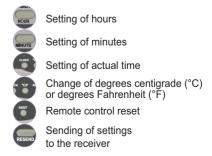
#### **PURCHASE CODES**

- Prewired cable for connection between receiver and motherboard - **T010085** length: 10 m.

#### **APPEARANCE**

**ACCESSORIES** 







Power supply:

230Vac ±10% 50Hz

Contact capacity:

5 A @ 250Vac

Air intake sensor:

NTC 4,7 K @ 25°C NTC 4,7 K @ 25°C

Water sensor: Differential:

0,5°C

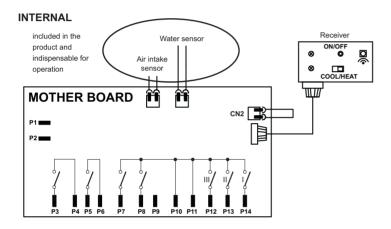
Resolution:

1°C

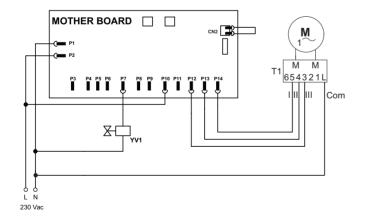
Adjustment range:

15°C .. 30°C

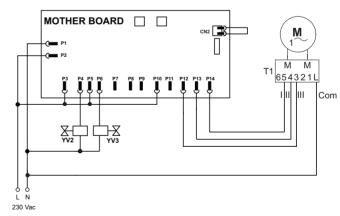
#### **WIRING DIAGRAMS**



#### 2 PIPE SYSTEM + VALVE



#### 4 PIPE SYSTEM + 2 VALVES



#### LEGENDA:

T1 AUTOTRANSFORMER
(not always installed)

YV1 HOT/COLD WATER VALVE

YV2 HOT WATER VALVE

YV3 COOL WATER VALVE



#### **PURCHASE CODES**

## **CD11**

- Loose / Not mounted: EDT000100285

#### PRODUCT TYPE

- Control for fan coil without temperature control
- Main functions: switching the fan coil on and off;
  - manual heating/cooling selection;
  - manual 3 speed setting;
- Installation: wall-mounted (surface mounting);
- Power supply: 230 Vac 50 Hz



#### PRODUCT DESCRIPTION

Control for 2-pipe fan coil.

Complete with:

- Manual off/cooling/heating selector switch;
- Manual fan low-med-high speed selector switch;
- Indicator light to show fan coil status: on/off;
- Input for minimum water temperature thermostat (bimetallic contact).

#### APPLICATION

Control for a single fan coil in environments where automatic temperature control is not required (with thermostat). Suitable for:

- 2-pipe system.

#### **OPERATION**

2-pipe fan coil without valve: the off/cooling/heating selector switch is manually set to start the fan in the selected mode. Fan operation specification:

Heating: when a minimum water temperature thermostat is installed the fan starts when the exchanger temperature exceeds 35°C. When no minimum water temperature thermostat is installed, the fan continues to run at the speed set with the speed selector switch.

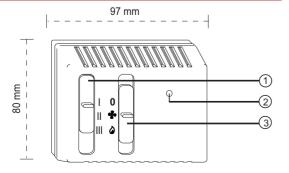
Cooling: the fan continues to run at the set speed.

#### **ACCESSORIES**

#### **PURCHASE CODES**

 Minimum water temperature thermostat (bimetallic contact 35°C) - Mounted: ED9809000101

- Loose / Not mounted: ED980900101S



- Low-medium-high speed selector switch: selector switch used to set the fan powerup speed
- ② Indicator light: fan coil status (on/off).
- 3 Summer/off/winter selector switch: selector switch used to start or stop the fan coil as described below:

  - Winter mode ( a ): power up is in the heating mode;
  - Off mode (  ${\bf 0}\,$  ): the fan coil is switched off.



Power supply:

230Vac ±10% 50Hz

Contact capacity:

5 A @ 250Vac

Enclosure: Material: ABS V0 self-extinguishing Signal white (RAL 9003)

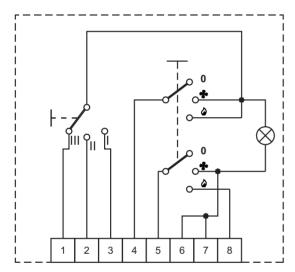
Colour:

Size:

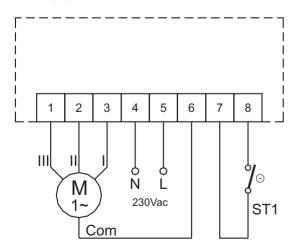
97 x 80 x 37 mm (L x A x P)

#### WIRING DIAGRAMS

#### **INTERNAL**



#### **2 PIPE SYSTEM**



#### LEGENDA:

ST1 MINIMUN WATER TEMPERATURE THERMOSTAT



## **CD12**

#### **PURCHASE CODES**

- Mounted: EDT00010037M

- Loose / Not mounted: EDT00010037S

#### **PRODUCT TYPE**

- Electronic thermostat for fan coil;

- Main functions: - switching the fan coil on and off;

- room temperature adjustment;

- manual heating/cooling selection;

- manual 3 speed setting;

- Installation: - wall-mounted (surface mounting with centres for box 503);

- directly on the fan coil;

- Power supply: - 230 Vac 50 Hz



#### **PRODUCT DESCRIPTION**

Electronic thermostat for 2 or 4-pipe fan coil. Complete with:

- Room air sensor:
- Room temperature control knob;
- Manual cooling/off/heating selector switch. Manual fan low-med-high speed selector switch;
- Inputs for air intake sensor and for minimum water temperature thermostat (bimetallic contact);
- 2 outputs for on-off type valve 230 Vac.

Suitable for wall mounting; alternatively it may be installed directly on the fan coil.

#### **APPLICATION**

Control of a single fan coil in offices, dwellings and hotel rooms.

Suitable for:

- 2-pipe system;
- 2-pipe system + valve;
- 4-pipe system + 2 valves with manual heating/cooling changeover.

#### **OPERATION**

1 - 2-pipe fan coil without valve: the thermostat starts the fan if heating or cooling is required and stops the fan when the room temperature set with the knob has been reached.

When a minimum water temperature thermostat is installed, the fan starts in the heating mode when the exchanger temperature exceeds 35°C. **2 - 2-pipe fan coil with valve:** the thermostat opens the valve if heating or cooling is required and closes it when the room temperature set with the knob has been reached.

**3 - 4-pipe fan coil with 2 valves:** the heating or cooling function is set manually. The thermostat controls the hot water valve in the heating mode and the cold water valve in the cooling mode; it closes the valve when the room temperature set with the knob has been reached. **Fan operation in configurations 2-3** 

Heating: when a minimum water temperature thermostat is installed, the fan starts when the exchanger temperature exceeds 35°C. When no minimum water temperature thermostat is installed, the fan continues to run at the speed set with the speed selector switch.

Cooling: the fan continues to run at the speed set with the speed selector switch.

N.B.: with installation directly on the fan coil, use the valves for correct operation.

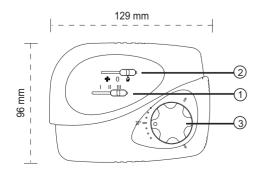
#### **ACCESSORIES**

#### **PURCHASE CODES**

- Air intake sensor

- Loose / Not mounted: T010050S

 Minimum water temperature thermostat (bimetallic contact 35°C) - Mounted: **ED9809000101**- Loose / Not mounted: **ED980900101S** 



- ① Low-medium-high speed selector switch: selector switch used to set the fan motor power-up speed;
- Cooling/off/heating selector switch: selector switch used to start or stop the fan coil as described below:
  - Summer mode ( ): power up is in the cooling mode;
  - Winter mode ( ): power up is in the heating mode;
  - Off mode ( 0 ): the fan coil is switched off.
- 3 Room temperature adjustment knob: knob used to set the required room temperature.



Power supply:

230Vac ±10% 50Hz 3 A @ 250Vac

Contact capacity: Air intake sensor:

NTC 4,7 K @ 25°C

Differential:

0,5°C

Adjustment range:

10°C .. 30°C

Enclosure: Material:

ABS V0 self-extinguishing

Colour:

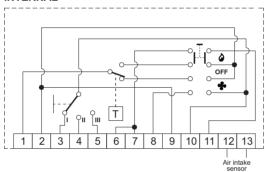
Signal white (RAL 9003)

Size:

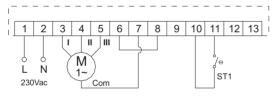
129 x 96 x 37 mm (L x A x P)

#### **WIRING DIAGRAMS**

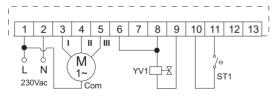
#### **INTERNAL**



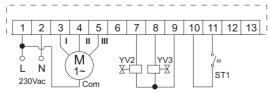
#### 2 PIPE SYSTEM



#### 2 PIPE SYSTEM + VALVE



#### 4 PIPE SYSTEM + 2 VALVES



#### LEGENDA:

YV1 HOT/COLD WATER VALVE YV2 HOT WATER VALVE YV3 COLD WATER VALVE

ST1 MINIMUN WATER

TEMPERATURE THERMOSTAT



## CD12C

#### **PURCHASE CODES**

- Mounted: EDT00010038M
- Loose / Not mounted: EDT00010038S

#### PRODUCT TYPE

- Electronic thermostat for fan coil;
- Main functions: switching the fan coil on and off;
  - room temperature adjustment;
  - heating/cooling selection: central control or automatic;
  - manual 3 speed setting;
- Installation: wall-mounted (surface mounting with centres for box 503);
  - directly on the fan coil;
- Power supply: 230 Vac 50 Hz



#### **PRODUCT DESCRIPTION**

Electronic thermostat for 2-pipe fan coil. Complete with:

- Room air sensor;
- Room temperature control knob;
- Manual off/on/manual selector switch. Manual fan low-med-high speed selector switch;
- Input for heating/cooling changeover: central control (from remote changeover switch) or automatic (with changeover switch 37T);
- Input for air intake sensor;
- Output for on-off type valve 230 Vac.

Suitable for wall mounting; alternatively it may be installed directly on the fan coil.

#### **APPLICATION**

Easy-to-install, particularly strong, versatile thermostat for the control of a single fan coil where a central or automatic heating/cooling function is required. Suitable for:

- 2-pipe system:
- 2-pipe system + valve.

#### **OPERATION**

#### Heating/cooling:

- central: set through a remote changeover switch (installed by the customer).
- automatic: set through the changeover switch 37T (see pages 12-13).

Selector switch in "on" position: the thermostat is in the cooling or heating mode depending on the position of the central or automatic changeover switch, with operation as described below:

- 1 2-pipe fan coil without valve: the thermostat starts the fan if heating or cooling is required and stops the fan when the room temperature set with the knob has been reached.
- 2 2-pipe fan coil with valve: the thermostat starts the fan and opens the valve fan if heating or cooling is required; it stops the fan and closes the valve when the room temperature set with the knob has been reached.

Selector switch in "manual" position: valve always open and fan always running (no adjustment possible).

N.B.: with installation directly on the fan coil, use the valves for correct operation.

#### **ACCESSORIES**

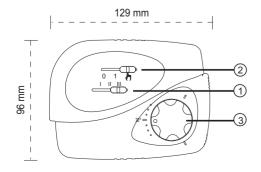
#### **PURCHASE CODES**

- Air intake sensor

- Loose / Not mounted: T010050S

- Automatic changeover switch 37T

- Loose / Not mounted: T010019



- ① Low-medium-high speed selector switch: selector switch used to set the fan motor power-up speed;
- ② Off/on/manual selector switch: selector switch used to start or stop the fan coil as described below:
  - Mode 1 (1): the cooling or heating mode is active depending on the position of the central or automatic changeover switch
  - Manual mode ( ): valve always open and fan always running;
  - Off mode ( 0 ): the fan coil is switched off.
- 3 Room temperature adjustment knob: knob used to set the required room temperature.



Power supply:

230Vac ±10% 50Hz 3 A @ 250Vac

Contact capacity: Air intake sensor:

NTC 4,7 K @ 25°C

Differential:

0,5°C

Adjustment range:

10°C .. 30°C

Enclosure: Material:

ABS V0 self-extinguishing

Colour:

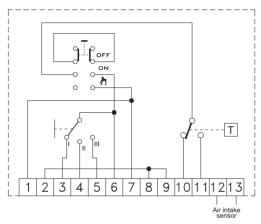
Signal white (RAL 9003)

Size:

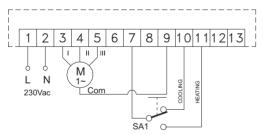
129 x 96 x 37 mm (L x A x P)

#### **WIRING DIAGRAMS**

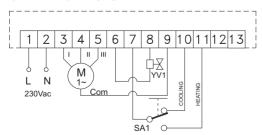
#### **INTERNAL**



#### 2 PIPE SYSTEM AND CENTRAL CHANGEOVER



#### 2 PIPE SYSTEM WITH VALVE AND CENTRAL CHANGEOVER



#### LEGENDA:

YV1 HOT/COLD WATER VALVE

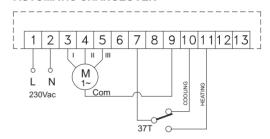
SA1 CENTRAL REMOTE CHANGEOVER SWITCH FOR MANUAL HEATING/COOLING

CHANGEOVER

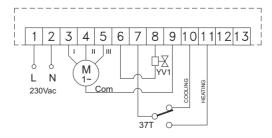
INSTALLED BY THE CUSTOMER
37T CHANGEOVER SWITCH FOR AUTOMATIC

HEATING/COOLING CHANGEOVER

#### 2 PIPE SYSTEM AND AUTOMATIC CHANGEOVER



#### 2 PIPE SYSTEM WITH VALVE AND AUTOMATIC CHANGEOVER





## **CD14**

#### **PURCHASE CODES**

- Mounted: **EDT00010039M**
- Loose / Not mounted: EDT00010039S

#### **PRODUCT TYPE**

- Electronic thermostat for fan coil;
- Main functions: switching the fan coil on and off;
  - room temperature adjustment;
  - automatic heating/cooling selection with neutral zone;
  - manual 3 speed setting;
- Installation: wall-mounted (surface mounting with centres for box 503);
  - directly on the fan coil;
- Power supply: 230 Vac 50 Hz



#### PRODUCT DESCRIPTION

Electronic thermostat for 4-pipe fan coil. Complete with:

- Room air sensor;
- Room temperature control knob;
- Manual on/off selector switch. Manual fan low-med-high speed selector switch;
- Automatic changeover between cooling and heating according to room temperature;
- Adjustable neutral zone;
- Indicator light to show heating or cooling mode;
- Input for air intake sensor;
- 2 outputs for on-off type valves 230 Vac.

Suitable for wall mounting; alternatively it may be installed directly on the fan coil.

#### **APPLICATION**

Easy-to-install, particularly strong, versatile thermostat for the control of a single fan coil where an automatic heating/cooling function is required. Suitable for:

- 4-pipe system + 2 valves.

#### OPERATION

The thermostat automatically controls the hot water valve for heating or the cold water valve for cooling, while the fan runs continually. Changeover between cooling and heating is automatic according to room temperature and the neutral zone.

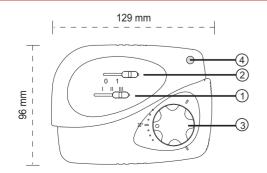
The neutral zone may be adjusted at the time of installation.

#### **ACCESSORIES**

#### **PURCHASE CODES**

- Air intake sensor

- Loose / Not mounted: T010050S



- Low-medium-high speed selector switch: selector switch used to set the fan motor power-up speed;
- ② Off/on selector switch: selector switch used to start or stop the fan coil as described below:
  - Mode 1 ( 1 ): the fan coil is active in the heating or cooling mode;
  - Off mode ( 0 ): the fan coil is switched off.
- 3 Room temperature adjustment knob: knob used to set the required room temperature.
- 4 Indicator light: to show heating or cooling mode.



Power supply:

230Vac ±10% 50Hz 3 A @ 250Vac

Contact capacity: Air intake sensor:

NTC 4,7 K @ 25°C

Differential:

0,5°C

Adjustment range:

10°C .. 30°C 1°C .. 11°C (configurable)

neutral zone: Enclosure: Material:

ABS V0 self-extinguishing

Colour:

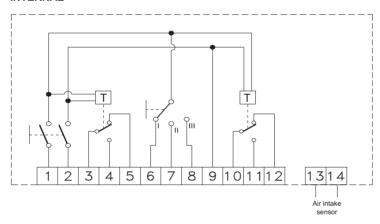
Signal white (RAL 9003)

Size:

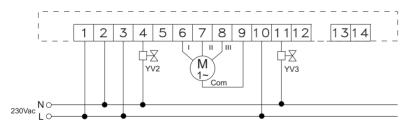
129 x 96 x 37 mm (L x A x P)

#### WIRING DIAGRAMS

#### INTERNAL



#### 4 PIPE SYSTEM + 2 VALVES



#### LEGENDA:

YV2 HOT WATER VALVE YV3 COLD WATER VALVE



## CD2X6F

#### **PURCHASE CODES**

- Mounted: EDT00010048M

- Loose / Not mounted: EDT00010048S

#### PRODUCT TYPE

- Programmable electronic thermostat with LCD for fan coil

- Main functions: - switching the fan coil on and off:

- room temperature adjustment;

- manual or automatic heating/cooling selection;

- manual or automatic 3 speed setting;

- display for reading/displaying room and set point temperature;

- control of on/off and floating (3-point) valves, control of electric heater;

- programmability of functions.

- Installation: - wall-mounted (surface mounting with centres for box 503);

- directly on the fan coil;

- 230 Vac 50 Hz (for use with valves 230 Vac) - Power supply:

- 24 Vac 50 Hz (for use with valves 24 Vac)



#### PRODUCT DESCRIPTION

Programmable electronic thermostat for 2 or 4-pipe fan coil. Room temperature adjustment knob. Complete with:

- Room air sensor:
- Fan coil on-off button. Auto-low-med-high fan speed button. Heating/cooling button.
- Inputs for air intake sensor, minimum water temperature thermostat/sensor or window contact, central heating/cooling changeover
- State of filter control; function: economy, frost protection, stratification prevention.
- 2 outputs for on-off type or floating (3-point) valves. Possibility of control for extra electric heater.

Suitable for wall mounting; alternatively it may be installed directly on the fan coil.

#### **APPLICATION**

Control of a single fan coil in hotel rooms, offices and dwellings where automated functions are required or the possibility of modulating the flow of water to the fan coil to improve environmental comfort. Suitable for:

- 2-pipe system;
- 2-pipe system + valve + possible electric heater;
- 4-pipe system + 2 valves with automatic changeover between heating/cooling with neutral zone.

N.B.: if used with 24 Vac valves, the thermostat must be powered through a 230/24 Vac transformer.

The thermostat has a set of parameters that allow the mode of operation to be defined according to installation or system requirements. To program, just use the buttons and knob according to the instructions given in the guide.

The following may be defined:

- type of system (2 or 4 pipes, with electric heater, with valves, with or without external sensors);
- control mode (valves, fan, both);
- type of valves (on-off or floating/3-point);
- manual or automatic changeover between cooling and heating;
- values for: temperature adjustment, heating/cooling changeover, minimum water temperature sensor activation temperature, economy, neutral zone amplitude, hysteresis, proportional bands, any fan stop delays, filter control warning time.

N.B.: with installation directly on the fan coil, use the valves for correct operation.

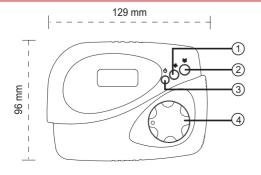
#### **ACCESSORIES**

- Air intake sensor
- Water sensor (for winter minimum function or automatic heating/cooling changeover)
- -Transformer 230/24 Vac (for use with valves at 24 Vac)

- Mounted: EDT00010046M

- Mounted: **EDT00010047M** 

- Loose / Not mounted: T010048TS
- Loose / Not mounted: EDT00010046S
- Loose / Not mounted: EDT00010047S



- Auto-low-med-high button: button used to select the fan power up speed.
- Heating/cooling button: button used to select the mode of operation as described
  - Summer mode (COO): power up is in the cooling mode;
  - Winter mode (HEA): power up is in the heating mode;
- On/off button: button used to switch the fan coil on and off;
- Room temperature adjustment knob: knob used to set the required room thermostat.



Power supply:

230Vac ±10% 50Hz for 230 Vca valves

24Vac ±10% 50Hz for 24 Vca valves

Contact capacity:

Fan 3 A @ 250Vac (RELAY)

Valves 1 A @ 250Vac (TRIAC)

Air intake sensor:

NTC 4,7 K @ 25°C

Water sensor:

NTC 4,7 K @ 25°C or bimetallic contact

Differential:

0,2 .. 1°C (configurable)

Resolution:

0,1°C

Adjustment range:

5°C .. 35°C (configurable)

Enclosure: Material:

ABS V0 self-extinguishing

Colour:

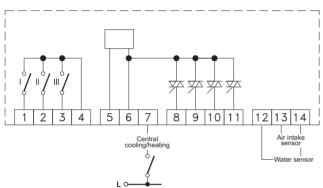
Signal white (RAL 9003)

Size:

129 x 96 x 37 mm (L x H x P)

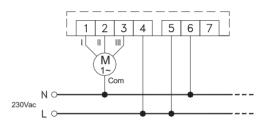
#### **ELECTRICAL WIRINGS**

#### **INTERNAL**



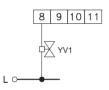
#### CONNESSIONEI MOTORE/VENTILATORE

+ ALIMENTAZIONE 230 Vca



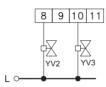
#### **2 PIPE SYSTEM**

+ ON/OFF VALVE



4 PIPE SYSTEM

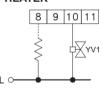
+ 2 ON/OFF VALVES



2 PIPE SYSTEM

+ ON/OFF VALVE

+ HEATER



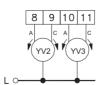
#### 2 PIPE SYSTEM

+ 3 POINT VALVE



**4 PIPE SYSTEM** 

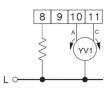
+ 2 x 3 POINT VALVES



2 PIPE SYSTEM

+ 3 POINT VALVE

+ HEATER



#### LEGENDA:

YV1 HOT/COLD WATER VALVE

YV2 HOT WATER VALVE

YV3 COLD WATER VALVE



## CD2X6M

#### **PURCHASE CODES**

- Mounted: EDT00010049M

- Loose / Not mounted: EDT00010049S

#### PRODUCT TYPE

- Programmable electronic thermostat with LCD for fan coils

- Main functions: - switching the fan coil on and off;

- room temperature adjustment;

- manual or automatic heating/cooling selection;

- manual or automatic 3 speed setting;

- display for reading/displaying room and set point temperature;

- control of modulating valves (0-10 Vdc) and motor (0-10 Vdc);

- programmability of functions.

- Installation: - wall-mounted (surface mounting with centres for box 503);

- directly on the fan coil.

- Power supply: - 230 Vac 50 Hz (for use with modulating valves 230 Vac)

- 24 Vac 50 Hz (for use with modulating valves 24 Vac)

#### **PRODUCT DESCRIPTION**

Programmable electronic thermostat for 2 or 4-pipe fan coil. Room temperature adjustment knob. Complete with:

- Room air sensor;
- Fan coil on-off button. Auto-low-med-high fan speed button. Heating/cooling button.
- Inputs for air intake sensor, minimum water temperature thermostat/sensor or window contact, central heating/cooling changeover
- State of filter control; function: economy, frost protection, stratification prevention.
- 2 outputs for modulating valves (0-10 Vdc); 1 output for modulating motor (0-10 Vdc). Possibility of control for extra electric heater. Suitable for wall mounting; alternatively it may be installed directly on the fan coil.

#### **APPLICATION**

Control of a single fan coil in hotel rooms, offices and dwellings where automated functions are required or fine modulating of the flow of water to the fan coil to improve environmental comfort.

Suitable for:

- 2-pipe system;
- 2-pipe system + modulating valve + possible electric heater;
- 4-pipe system + 2 modulating valves with automatic changeover between heating/cooling.

N.B.: if used with 24 Vac valves, the thermostat must be powered through a 230/24 Vac transformer.

#### **OPERATION**

The thermostat has a set of parameters that allow the mode of operation to be defined according to installation or system requirements. To program, just use the buttons and knob according to the instructions given in the guide. The following may be defined:

- type of system (2 or 4 pipes, with valves, with or without external sensors);
- control mode (valves, fan, both);
- type of valves (on-off or floating/3-point);
- manual or automatic changeover between cooling and heating;
- values for: temperature adjustment, heating/cooling changeover, minimum water temperature sensor activation, economy, neutral zone amplitude, hysteresis, proportional bands, any fan stop delays, filter control warning time.

N.B.: with installation directly on the fan coil, use the valves for correct operation.

#### **ACCESSORIES**

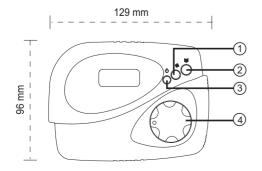
#### **PURCHASE CODES**

- Air intake sensor
- Water sensor (for winter minimum function or automatic heating/cooling changeover)
- -Transformer 230/24 Vac (for use with 24 Vac valves)
- Mounted: **EDT00010046M**

- Loose / Not mounted: EDT00010046S

- Loose / Not mounted: EDT00010047S

- Mounted: **EDT00010047M**- Loose / Not mounted: **T010048TS** 



- ① Auto-low-med-high button: button used to select the fan power up speed.
- Heating/cooling button: button used to select the mode of operation as described below:
  - Summer mode (COO): power up is in the cooling mode;
  - Winter mode (HEA): power up is in the heating mode;
- On/off button: button used to switch the fan coil on and off;
- Room temperature adjustment knob: knob used to set the required room thermostat.



Power supply: 230Vac ±10% 50Hz - motor side

24Vac ±10% 50Hz - valves side

Contact capacity:

Fan 3 A @ 250Vca (RELAY)

Valves 1 A @ 250Vca (TRIAC)

Air intake sensor:

NTC 4,7 K @ 25°C

Water sensor:

NTC 4,7 K @ 25°C or bimetallic contact

Differential: Resolution:

0,2°C

Adjustment range:

0,1°C

Enclosure: Material:

5°C .. 35°C (configurable) ABS V0 self-extinguishing

Colour:

Signal white (RAL 9003)

Size:

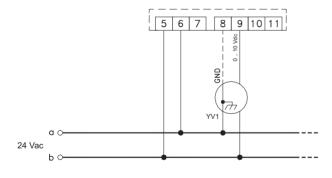
129 x 96 x 37 mm (L x H x P)

#### **WIRING DIAGRAMS**

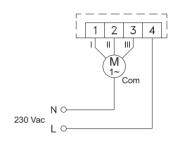
#### INTERNAL

# 

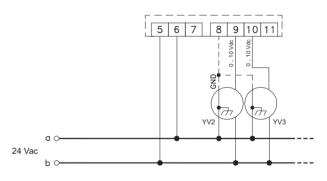
#### 2 PIPE SYSTEM + 24 Vca VALVE



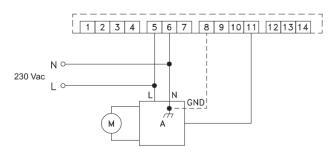
#### **MOTOR/FAN CONNECTION**



#### 4 PIPE SYSTEM + 2 24 Vca VALVES



#### CONTINUAL MOTOR/FAN SPEED CONTROL THROUGH ACTUATOR



#### LEGENDA:

YV1 HOT/COLD WATER VALVE
YV2 HOT WATER VALVE
YV3 COLD WATER VALVE
A ACTUATOR



#### **PURCHASE CODES**

#### - Loose / Not mounted: EDT000010101

## SDI

#### PRODUCT TYPE

- Interface card to control up to 4 fan coils from a single Eden thermostat.
- Installation on Din rail (6 modules): d
- directly on the fan coil;
- Power supply:
- inside a switchboard;230 Vac 50 Hz



#### PRODUCT DESCRIPTION

Relay board for controlling 4 fans from a single control/thermostat.

- 1 input for fan power supply 230 Vac/50 Hz;
- 1 input for low-med-high speed for control/thermostat 230 Vac/50 Hz;
- 4 outputs for low-med-high speed for fan control 230 Vac/50 Hz.

#### **APPLICATION**

Control of up to 4 fan coils with 2 or 4-pipe systems in environments where a single control/thermostat is required.

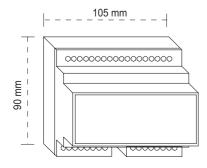
#### **OPERATION**

Each of the low-med-high input signals coming from the control/thermostat controls a relay, which in turn powers the single speed of the fan to which it is connected.

#### **ACCESSORIES**

**PURCHASE CODES** 

- None





Power supply:

230Vac ±10% 50Hz

Contact capacity: Enclosure: Material:

3 A @ 250Vac

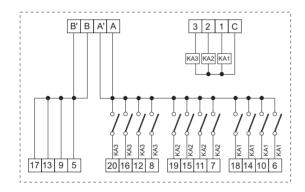
Size:

Technopolymer class V0 105 x 90 x 70 mm (L x H x P)

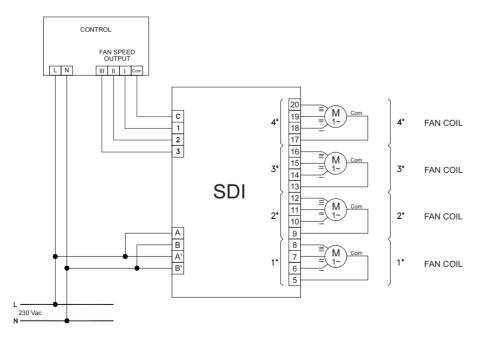
6 DIN rails

#### WIRING DIAGRAMS

#### INTERNAL



#### **EXAMPLE OF APPLICATION**










Due to Lennox's ongoing commitment to quality,

the Specifications, Ratings and Dimensions are subject to change without notice and without

Improper installation, adjustment, alteration,

service or maintenance can cause property

Installation and service must be performed by a

qualified installer and servicing agency.

incurring liability.

damage or personal injury.

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